

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 62-237908

(43)Date of publication of application : 17.10.1987

(51)Int.Cl. B01D 13/01

(21)Application number : 61-078171

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(22)Date of filing : 07.04.1986

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## (54) FILTER MODULE FOR HOLLOW YARN TYPE MEMBRANE SEPARATION EQUIPMENT

### (57)Abstract:

**PURPOSE:** To prevent bubbles from escaping of the lower part of a protective cylinder to the outside thereof in the case of washing due to air flushing and to efficiently wash the titled filter module with a small amount of air to be blown therein by providing many holes of the protective cylinder for the filter module to the intermediate part and the upper part thereof.

**CONSTITUTION:** In a filter module wherein plenty of yarn is converged in a protective cylinder 11 perforated with many holes and the top ends of hollow yarn 12 are opened and fixed on a top end disk 13 and the bottom end thereof is closed together with the protective cylinder 11, the lower part of the protective cylinder 11 is made free from the hole or provided with a few hole 11' and the intermediate and upper parts are provided with many holes 11'. In the case of washing a hollow yarn type membrane separation equipment wherein a plurality of filter modules are hung on a partition of the inside of a treatment chamber, bubbles fed through an air feed pipe of the lower part of the treatment chamber are supplied to the inside of the protective cylinder 11 through perforated holes of a lower end plate 14 and nearly all parts of bubbles are emitted to the outside of the cylinder through the holes 11' of the upper part of the protective cylinder

